

The Induction air melting process used at Eagle Precision can accommodate most ferrous or nonferrous alloys.

## Eagle Precision Alloys Produced

<b>CARBON STEEL</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
1010/AISI 1010 IC 1010	50-55 Rb	N/A	Electrical applications
1018/AISI 1018 IC 1018	65-80 Rb	N/A	Carburizing steel for general applications
1020/ASTM A732 IC 1020	80 Rb	N/A	Inexpensive with wide range of applications
1030/ASTM A732 1030	75 Rb	20-50 Rc	Hardenable/Medium strength
1040/ASTM A732 IC 1040	85 Rb	22-51 Rc	Hardenable/Medium strength
1045/IC 1045	100 Rb	25-57 Rc	Hardenable/Medium strength
1050/ASTM A732 IC 1050	100 Rb	30-60 Rc	Hardenable/Medium strength
1060/AISI 1060 IC 1060	100 Rb	33-60 Rc	Hardenable/Medium strength
<b>ALLOY STEEL</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
4130/ASTM A732 IC 4130	100 Rb	23-49 Rc	Structural applications. Good weldability
4140/ASTM A732 IC 4140	100 Rb	29-57 Rc	Good toughness/Fatigue resistance
4340/ASTM A732 IC 4340	20 Rc	20-55 Rc	High strength/Fatigue resistance
6150/ASTM A732 IC 6150	100 Rb	30-60 Rc	High abrasion & shock resistance
8620/ASTM A732 IC 8620	100 Rb	20-45 Rc	Carburizing used for gears, crankshafts etc.
8630/ASTM A732 IC 8630	100 Rb	25-50 Rc	Often used for machine parts
52100/ASTM A732 IC 52100	25 Rc	30-65 Rc	High carbon/Good abrasion resistance
<b>AUSTENITIC STAINLESS</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
303/CF16	90 Rb	N/A	Corrosion resistant/Good machinability
304/CF8	90 Rb	N/A	Better corrosion resistance
310/HK	90 Rb	N/A	Good heat resistance
316/AMS 5360 CF8M	90 Rb	N/A	Very good corrosion resistance
330/HT	90 Rb	N/A	Very good heat resistance/Resists thermal shock
347/CF8C	90 Rb	N/A	Good corrosion resistance
<b>HARDENABLE STAINLESS</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
17-4/AMS 5355	36 Rc	34-44 Rc	Corrosion resistant/Machinable
410/CA15	100 Rb	94 Rb-45 Rc	Good hardness and corrosion resistance
416/AMS 5349 IC 416	100 Rb	94 Rb-45 Rc	Better machinability than 410
420/ASTM A743 IC 420	25 Rc	30-52 Rc	Higher hardness
440C/AMS 5352 IC 440C	35 Rc	40-60 Rc	Good toughness/Higher hardness
<b>COBALT &amp; NICKEL BASE</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
Cobalt-6/AMS 5387 - 5373	37-45 Rc (as cast)	N/A	Heat and corrosion resistant
Ni Alloy C/ASTM A494	90 Rb (as cast)	N/A	Heat and corrosion resistant
<b>TOOL STEEL</b>			
<b>ALLOY/SPECIFICATION</b>	<b>ANNEALED</b>	<b>HARDENED</b>	<b>CHARACTERISTICS</b>
A-2/CA-2	20 Rc	47-60 Rc	Medium machinability, toughness & wear resistance
D-2/CD-2	35 Rc	50-59 Rc	Very good wear resistance/Lower machinability & toughness
H-13/CH-13	100 Rb	45-53 Rc	Medium machinability & wear resistance
			Very good toughness
O-1/CO-1	100 Rb	45-61 Rc	Medium toughness & wear resistance
			Good machinability
O-2/CO-2	100 Rb	38-60 Rc	Medium toughness & wear resistance
			Good machinability
S-5/CS-5	100 Rb	37-59 Rc	Medium machinability/Low wear resistance
			Very good toughness
S-7/CS-7	100 Rb	35-57 Rc	Medium machinability/Low wear resistance
			Very good toughness
<b>NON-FERROUS</b>			
<b>ALLOY/SPECIFICATION</b>	<b>TENSILE STRENGTH (psi)</b>	<b>YIELD STRENGTH (psi)</b>	<b>CHARACTERISTICS</b>
Aluminum Alloy/A356 ASTM B26	38-48,000	28-36,000	Good castability, weldability and corrosion resistance
Aluminum Bronze/954 ASTM B148	75-85,000 as cast 90-105,000 H.T.	30-40,000 as cast 45-55,000 H.T.	Good corrosion resistance/Heat Treatable
Silicon Bronze/872 ASTM B763	55-65,000	22-30,000	Good corrosion resistance/Fair castability

*The values listed are for informational purposes only.*

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